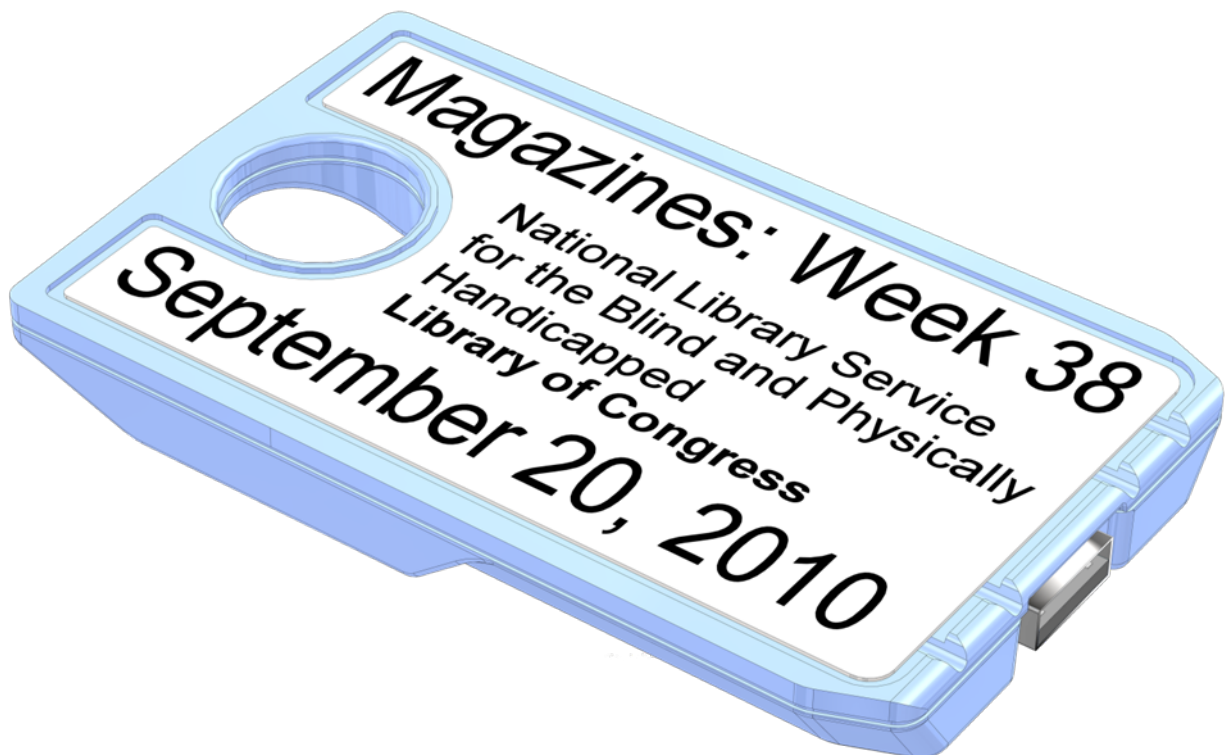


Specification 901:2016

Duplication and Distribution of Digital Talking Book Magazines



Revision History

Revision Issue	Date	Change Description
Rev. 1.0	March/30/2012	First Release
Rev. 1.1	June/05/2012	Add patron barcode requirements to address card, braille date to cartridge label
Rev. 1.2	January/15/2016	Add overseas address card
		Add order form for accompanying TBT
		Add UEB reference

Final Approval


Release Approval:

Head,
Quality Assurance Section



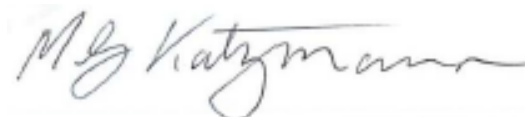
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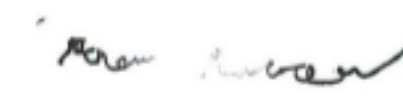
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1. Scope

This specification covers the requirements for distribution of audio magazines on digital talking-book cartridges produced for the National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress.

2. Reference Documents

The following documents and publications form a part of this specification. In the event of conflict between the documents and publications referenced herein and the content of this specification, the content of this specification shall be considered a superseding requirement.

2.1. Specifications

American National Standards Institute (ANSI)

ANSI/NISO Z39.86-2002

Specifications for the Digital Talking Book

The document cited above is available from:

American National Standards Institute, Inc.

25 West 43rd St. 4th Floor

New York, NY 10036

Tel: (212) 642-4900

Fax: (212) 398-0023

and at:

www.niso.org/workrooms/daisy/Z39-86-2002.html

ISO/IEC 15417:2007

Information Technology — Automatic Identification and Data Capture Techniques — Code 128 Bar Code Symbol Specification

The document cited above is available from:

American National Standards Institute, Inc.

25 West 43rd St. 4th Floor

New York, NY 10036

Tel: (212) 642-4900

Fax: (212) 398-0023

and at

<http://webstore.ansi.org/>

Braille Authority of North America

International Council on English Braille

The Rules of Unified English Braille Second Edition 2013

Available at:

www.iceb.org/ueb

DAISY Consortium

DAISY Protected Digital Talking-Book Specification, Version 2.0

Available at:

www.daisy.org/projects/pdtb

United States Postal Service

Domestic Mail Manual

Available at

http://pe.usps.com/text/dmm300/dmm300_landing.htm

2.2. Standards

American National Standards Institute (ANSI)

ANSI/ASQ Z1.4-2003

Sampling Procedures and Tables for Inspection by Attributes

The document cited above is available from:

American Society for Quality

Quality Press

611 East Wisconsin Ave.

P.O. Box 3005

Milwaukee, WI 53201-3005

and at

www.asq.org/quality-press/index.html

Microsoft

Microsoft Extensible Firmware Initiative FAT32 File System Specification, Rev 1.03

Available at:

<http://msdn.microsoft.com/en-us/windows/hardware/gg463080>

Internet Engineering Task Force Network Working Group

Common Format and MIME Type for Comma-Separated Values (CSV) Files

Available at:

www.ietf.org/rfc/rfc4180.txt

GS1 US

GS1-128 Barcode

The document cited above is available from:

GS1 US

7887 Washington Village Dr.

Suite 300

Dayton, OH 45459

Tel: (937) 435-3870

U.S. Government Printing Office

Government Paper Specification Standards March 2011 No. 12

Available at:

https://www.gpo.gov/pdfs/customers/sfas/vol12/vol_12.pdf

2.3. Definitions

Contractor Code		The 3-digit code assigned by NLS to uniquely identify the contractor
CSV	Comma-Separated Values	A generic file format that contains data, in printable format, that can be imported into a database
Digital Magazine		A periodical produced in the form of a DTB
DTB	Digital Talking Book	A collection of XML, compressed audio, and other computer files that hold the elements of a talking book under the NISO Z39.86:2002 and DAISY PDTB2 standards
DTBC	Digital Talking-Book Cartridge	The USB flash drive (physical media) on which DTBs are stored
DTBM	Digital Talking-Book Machine	The stand-alone electronic device to play a DTB, also referred to as a “player”
Magazine Edition		A unique instance of a magazine periodical
FAT32		A file system used to format a DTBC for file storage
GFE	Government-Furnished Equipment	
LC	Library of Congress	
NLS NLS/BPH	National Library Service for the Blind and Physically Handicapped	Division of the Library of Congress that exists to execute the United States laws codified in 2 USC §135a, 2 USC §135a-1, and 2 USC §135b
Picking List		A CSV database file containing duplication orders for DTB magazines to be sent to patrons. Each entry will identify the patron and the edition of a publication that patron is to receive
QAS	Quality Assurance Section	Section within the NLS Materials Development Division that ensures, by sampling and testing, that products produced adhere to the applicable NLS specifications required by the contract
Regional Libraries		Cooperating group of state institutions that receive recorded and braille books from NLS and circulate them to eligible patrons
ZIP		A single archive used to contain the files of a DTB

3. Requirements

3.1. Picking List Database

Patrons of the NLS magazine service shall receive digital magazines, contained on USB flash memory cartridges, based on data contained in picking lists generated by NLS. The number of magazines an individual patron will receive depends on the specific magazines to which he or she has subscribed, the available editions of those magazines that he or she has not already received, and the time elapsed since he or she was last sent a magazine cartridge. The picking list files are in the form of comma-separated values (CSV). The following data will be provided in each file:

- a. Library ID – The 4-digit NLS code for the patron’s regional library
- b. Patron ID – The unique identifier for each patron within the regional library
- c. Patron Instance – A single digit to distinguish which of multiple cartridges, for the same patron within a picking slip, the magazine edition shall be applied (in the unlikely event that the cumulative size of all magazines to be sent to a patron cannot be contained on a single cartridge) (0 being the first instance)
- d. Magazine ID – The NLS 3-letter code for a specific magazine publication
- e. Edition ID – The 8-digit code identifying the magazine edition comprising the concatenated print publication year, the sequence number of the edition (1 being the first edition of the calendar year) and the revision number (0 being the original)
- f. Picking List ID – A 10-letter/digit code comprising the concatenated contractor code, year, and sequence number of the picking list

See Appendix E.2 for an example.

3.2. Delivery Medium

3.2.1. Digital Talking-Book Cartridge (DTBC)

The digital magazines shall be written to a digital talking-book cartridge (DTBC). Cartridges containing magazines are blue to distinguish them from cartridges containing books.

3.2.2. DTBC Serial Number Database

NLS provides a database of DTBC serial numbers. This data is in the form of CSV files and may be used in identifying cartridges during the production, duplication, and refurbishment life cycle. The following data is contained in these files:

- a. Barcode with check digit — The external etched barcode on the DTBC housing
- b. USB serial number — The electronically readable USB serial number

See Appendix E.3 for an example.

3.2.3. DTBC Shipped Database

A database containing all DTBCs shipped to patrons shall be compiled and supplied to NLS. These DTBC shipped databases shall be provided as CSV files containing the following information (in the order shown):

- a. Library ID — The 4-digit NLS code for the patron's regional library
- b. Patron ID — A unique identifier for each patron
- c. Cartridge ID — The USB serial number or the barcode of the DTBC
- d. Cartridge ID type — The type of ID used for the cartridge: 0 for barcode or 1 for USB serial number
- e. Picking List ID — A 10-digit code comprising the concatenated year and sequence number of the picking list

See Appendix E.4 for an example.

3.3. File System

3.3.1. File System Format

The DTBC shall be partitioned using the Master Boot Record (MBR) partitioning scheme. The first partition shall be a primary partition and contain a single FAT32 file system according to FAT32 File System Specification, Rev 1.03 (see Section 2.2). The formatted partition shall be large enough to hold the required files but may be less than the total capacity of the cartridge.

3.3.2. File System Directory Structure

All files composing individual magazine editions (with the exception described in 3.4.2) shall be written into separate sub-directories within the DTBC root directory. The sub-directory names shall be in the form NNNyyyynnnr (where “NNN” is the 3-character NLS magazine code and “yyyynnnr” is the 8-digit edition ID).

3.4. Files

3.4.1. Magazine Files

The magazine DTBs will be available for downloading from NLS servers via the Internet as ZIP archives. Each archive will contain the files of an individual magazine edition. The magazine sub-directories described in 3.3.2 shall contain all the files and only the uncompressed files contained in the ZIP archive without alteration.

3.4.2. DTBM Software Upgrade Files

NLS may determine that digital talking-book machine software upgrade files be included on cartridges sent to patrons. The software upgrade files shall be supplied as a ZIP archive that must be uncompressed onto the cartridge, maintaining the directory structure. The upgrade will be identified in the picking list with the Magazine ID of UPG. Unlike the directory-naming

convention described in 3.3.2, the upgrade files and directories shall be those contained within the supplied ZIP file. The directory “upgrade” (from the ZIP archive file) shall be placed in the root directory of the cartridge file system.

3.4.3. Contractor Metadata File

An XML file containing the duplicator’s alphabetic 3-letter code and the Picking List ID number supplied by NLS shall be written to the root folder of the cartridge. The name of this file will be “contractor.xml”. An example of this file for a duplicator with a code of ACM and a Picking List ID of ACM20120027 is given in Appendix C

3.5. Write Protection

3.5.1. DTBC Write-Enabled Passcode

DTBCs from the NLS cartridge manufacturer are write protected by a 16-digit, 8-bit binary sequence. This sequence will be provided by NLS. The DTBC shall be enabled for writing by applying this sequence as described in Appendix D.1.

3.5.2. DTBC Write-Protected Passcode

The DTBC shall be protected to ensure only NLS authorized parties have the ability to alter files. NLS will supply a hexadecimal representation of a 16-byte passcode that shall be used to write protect the cartridge. These numbers represent a 16-digit, 8-bit binary string that forms the passcode used to write protect and subsequently write enable the cartridge. The DTBC shall be protected from erasure or writing by applying this sequence as described in Appendix D.2. The same sequence will be used during refurbishment of DTBCs.

3.5.3. Security of DTBC Passphrases

The recipient of the DTBC passphrases is responsible for their security. No more than three persons within the recipient’s organization shall have access to the NLS passphrases. Prior to obtaining passphrases from the contract monitor, the recipient organization shall provide NLS with a plan to secure the passphrases and its MD5 checksum from compromise. Equipment to be used in cartridge duplication shall not store either the passphrases or the passphrase digest in its unencrypted form.

The passphrases will only be supplied upon the contract monitor’s assessment that its security is assured.

3.6. Cartridge Print and Braille Label

An adhesive embossed PRINT/BRAILLE combination label shall be furnished and adhered to the DTBC in the space provided. To ensure consistent placement of printed elements, a standard layout grid and typographic style have been

established for DTBC labels. The label is to be white with black ink. Print must be at a minimum resolution of 300 dpi. The label dimensions and tolerances are defined in drawing 500001014B (Appendix A.2). The information specified (see Section 3.6.1) and only the specified information shall be printed and embossed onto the label. Printing directly onto the cartridge is not permitted.

Note: Where the Helvetica font is specified, it is permissible to substitute Arial.

3.6.1. Magazine Week Identifier

3.6.1.1. *Print*

The magazine week identifier shall be a single line printed in 30-point Helvetica font, left justified to fit the space defined in drawing 500001014B, note 5 (Appendix A.2). The text of the cartridge identifier shall be set in the form “Magazines: Week NN” (where “NN” is the production week number, commencing on Sunday, with week 01 being the week with the year's first Thursday in it).

3.6.1.2. *Braille*

The braille cartridge identifier shall consist of two lines of up to 14 and 11 cells respectively, in the position and space defined in drawing 500001014B, note 6 (Appendix A.2). The braille cartridge identifier shall be set in the form “Magazines: Week NN” (where “NN” is the production week number, commencing on Sunday, with week 01 being the week with the year's first Thursday in it). The braille shall be contracted according to the rules defined by the International Council on English Braille in “Rules of Unified English Braille” (see Section 2.1)

3.6.1.3. *Compressed Braille Cell/Dot Size and Spacing*

- a. The nominal height of the cartridge label braille dots shall be 0.019 inches.
- b. The nominal base diameter of the cartridge label braille dots shall be 0.053 inches.
- c. The cell spacing of dots shall conform to the following:
- d. The nominal distance from center-to-center of adjacent cartridge label dots (horizontally or vertically, but not diagonally) in the same cell shall be 0.078 inches.
- e. The nominal distance for center-to-center of corresponding cartridge label dots in adjacent cells shall be 0.245 inches.
- f. The nominal line spacing of braille cells from center-to-center of nearest corresponding cartridge label dots in adjacent lines shall be 0.312 inches.

3.6.1.4. *NLS Identifier*

The NLS identifier shall be four lines total. The first three lines shall be printed in 14-point Helvetica font, left justified and ragged right. The final

line shall be printed in 14-point Helvetica bold font, left justified. The position and area are defined in drawing 500001014B, note 7 (Appendix A.2). The text of the NLS identifier shall be set in the form “National Library Service for the Blind and Physically Handicapped” for the first three lines and “Library of Congress” for the final line.

3.6.2. Production Week Date

The production week date shall be a single line printed in 30-point Helvetica bold font, left justified to fit the space defined in drawing 500001014B, note 8 (Appendix A.2). The text of the date shall be set in the form “month dd, yyyy” (where “month” is the unabbreviated month, “dd” is the 2-digit day, and “yyyy” is the 4-digit year). The date printed on all cartridges written and mailed in any week shall be that of the Monday of that week.

3.6.2.1. Print

The print production week date shall be a single line printed in 30-point Helvetica bold font, left justified to fit the space defined in drawing 500001014B, note 8 (Appendix A.2). The text of the date shall be set in the form “month dd, yyyy” (where “month” is the unabbreviated month, “dd” is the 2-digit day, and “yyyy” is the 4-digit year). The date printed on all cartridges written and mailed in any week shall be that of the Monday of that week.

3.6.2.2. Braille

The braille production week date shall consist of one line of up to 14 cells, in the position and space defined in drawing 500001014B, note 11 (Appendix A.2). The braille production week date shall be set in the form “month dd, yyyy” (where “month” is the three letter abbreviated month, “dd” is the 2-digit day, and “yyyy” is the 4-digit year). The braille shall be contracted according to the rules defined by the International Council on English Braille in “Rules of Unified English Braille” (see Section 2.1)

3.7. Containers

The duplicated cartridges are to be packaged in government furnished containers. Magazine containers will be a color to distinguish them from book containers. Cartridges shall be placed in the containers with their labels facing up.

3.7.1. Address Database

A database containing the information necessary for creating the address cards will be provided by NLS. The address database shall be provided in the form of one or more CSV files.

Each entry in the file contains the following fields:

- a. Library ID — The 4-digit NLS code for the patron’s regional library

- b. Patron ID — A unique identifier for each patron
 - c. Name — The prefix (e.g. Mr., Mrs., or Sir) followed by first and last name of the patron
 - d. Address Line 1 — The first line of the patron's street address
 - e. Address Line 2 — The second line of the patron's street address
 - f. Address Line 3 — The third line of the patron's street address
 - g. City — The patron's city of residence
 - h. State — The patron's state of residence
 - i. ZIP or ZIP+4 — The patron's 5-digit or 9-digit ZIP code (for international patrons this will contain the equivalent postal code if it exists)
 - j. Country — The patron's country of residence (if not U.S.A.)
 - k. Foreign or Domestic — 1 if the address is foreign and 0 if it is within the U.S.A.
 - l. Library Phone Number — The telephone number of the patron's regional library
- See Appendix E.1 for an example.

3.7.2. Address Cards

Address cards shall be 3 inches (+0, -0.0625) by 5 inches (+0, -0.0625) in dimension, shall be double-sided, and shall include a tactile indicator to distinguish between front and back. The weight shall be 110-pound card stock. The address card shall appear as defined in drawing 500001015 (Appendix 0).

3.7.2.1. Front

Address cards shall contain the following information on the front face and visible when inserted into the container.

- a. Return address of the producer in the upper-left corner of the card, note 3 in drawing 500001015 (Appendix 0)
- b. Postal Routing Barcode, GS1-128 compliant as defined in Mailing Standards of the United States Postal Service Domestic Mail Manual section 708.5.2 (see Section 2.1), with the Application Identifier (AI), destination ZIP code data field containing the 5-digit or 9-digit ZIP code of the patron as supplied, and the check digit, note 4 in drawing 500001015 (Appendix A.3). Clear zone around barcode must be as defined in drawing 500001015.
- c. Printed text "Free Matter for the Blind or Handicapped," note 5 in drawing 500001015 (Appendix A.3)
- d. Printed text "Questions? Call (xxx) xxx-xxxx," note 6 in drawing 500001015 (Appendix A.3), telephone number supplied from the address database (see Section 3.7.1)
- e. Address of the patron, note 7 in drawing 500001015 (Appendix 0); blank address lines in the address database shall be suppressed
- f. Library ID and Patron ID, note 14 in drawing 500001015 (Appendix 0), supplied from the address database (see Section 3.7.1)

- g. Patron Barcode, Code 128 compliant as defined in ISO/IEC 15417:2007 Information Technology — Automatic Identification and Data Capture Techniques — Code 128 Bar Code Symbology Specification (see Section 2.1), concatenated Library ID and Patron ID (e.g. Library ID of DC1A and Patron ID of DC1A654321 should be read as “dc1adc1a654321”), note 15 in drawing 500001015 (Appendix 0).
- h. Date/Time stamp, note 17 in drawing 500001015 (Appendix 0)

3.7.2.2. **Back**

Address cards shall contain the following information on the back.

- a. Return address of the duplicator in the center of the card, note 8 in drawing 500001015 (Appendix 0)
- b. Printed text “Free Matter for the Blind or Handicapped,” note 5 in drawing 500001015 (Appendix 0)
- c. Postal Routing Barcode, GS1-128 compliant as defined in Mailing Standards of the United States Postal Service Domestic Mail Manual section 708.5.2 (see Section 2.1), with the Application Identifier (AI), destination ZIP code data field containing the 9-digit zip code of the duplicator, and the check digit, note 4 in drawing 500001015 (Appendix A.3). Clear zone around barcode must be as defined in drawing 500001015.

3.7.3. **Overseas Address Cards**

Address cards shall be 3 inches (+0, -0.0625) by 5 inches (+0, -0.0625) in dimension and shall be double-sided. The weight shall be 110-pound card stock. The address card shall appear as defined in drawing 500001017 (Appendix 0).

Overseas Address cards shall contain the following information on the front:

- a. Return address of the NLS/BPH in the upper-left corner of the card, note 3 in drawing 500001017 (Appendix A.5)
- b. Cecogramme image
- c. Printed text “CECOGRAMME Free Matter for the Blind or Handicapped,” note 5 in drawing 500001017 (Appendix 0)
- d. Printed text “Questions? e-mail overseas@loc.gov,” note 6 in drawing 500001017 (Appendix A.5)
- e. Address of the patron, note 7 in drawing 500001017 (Appendix A.5); blank address lines in the address database shall be suppressed
- f. Library ID and Patron ID, note 10 in drawing 500001017 (Appendix A.5), supplied from the address database (see Section 3.7.1)
- g. Patron Barcode, Code 128 compliant as defined in ISO/IEC 15417:2007 Information Technology - Automatic Identification and Data Capture Techniques - Code 128 Bar Code Symbology Specification (see Section 2.1), concatenated Library ID and Patron ID (e.g. Library ID of DC1A

and Patron ID of DC1A654321 should be read as “dc1adc1a654321”), note 11 in drawing 500001017 (Appendix A.5)

- h. Date/Time stamp, note 12 in drawing 500001017 (Appendix A.5)

3.7.4. Container Large Face (Belly) Label

Each container shall contain a label within the mailing-card-holder area. The label shall appear as defined in drawing 500001016 (Appendix A.4). The large face (belly) label shall contain the following information, all of which shall be legible:

- a. Return address of cartridge duplicator in the center of the card, note 6 in drawing 500001016 (Appendix A.4)
- b. Postal Routing Barcode, GS1-128 compliant as defined in Mailing Standards of the United States Postal Service Domestic Mail Manual section 708.5.2 (see Section 2.1), with the Application Identifier (AI), destination ZIP code data field containing the 9-digit zip code of the duplicator, and the check digit, note 4 in drawing 500001016 (Appendix A.4). Clear zone around barcode must be as defined in drawing 500001016.
- c. Printed text “Free Matter for the Blind or Handicapped,” note 5 in drawing 500001016 (Appendix A.4)

Print must be at a minimum resolution of 300 dpi.

3.8. Refurbishment

Patrons will return DTBCs and containers for refurbishment. DTBCs and containers will be cleaned, inspected, and certified for reuse.

3.8.1. Refurbished DTBC

Refurbished DTBCs must meet the following criteria:

- a. Label and adhesive residue must be cleared from the housing
- b. Cartridge must be free from physical damage
- c. Cartridge must be clean and free of dirt or other contamination
- d. USB connector must be free from physical damage
- e. Cartridge must operate and be recognized by a computer
- f. Contents of the flash memory must be erased (if duplication equipment requires)

Any DTBC that does not meet the above criteria shall not be reused. The NLS contract monitor shall be notified in writing of all DTBCs that do not meet the criteria for reuse. Notification shall include the USB serial number and barcode of the cartridge.

Cartridges determined by the contractor to be unusable shall be retained by the contractor and only be disposed of following the approval of the NLS Quality Assurance Section.

3.8.2. Refurbished Container

Refurbished containers must meet the following criteria:

- a. Address card must be removed
- b. Container must latch properly and be free from excessive physical damage
- c. Large face container label must be legible and free from damage (illegible or damaged labels should be removed and replaced with a new label)
- d. Container barcode must be legible and free from damage

Any container that does not meet the above criteria shall not be reused. The NLS contract monitor shall be notified in writing of all containers that do not meet the criteria for reuse.

Containers determined by the contractor to be unusable shall be retained by the contractor and only be disposed of following the approval of the NLS Quality Assurance Section.

3.8.3. DTBC Received Database

A database shall be created, updated, and transmitted to NLS to provide information on DTBCs returned for refurbishment. This database shall be provided to NLS as one or more CSV files.

The following information shall be contained in the CSV files:

- a. Cartridge ID — The USB serial number or the barcode of the DTBC
- b. Cartridge ID type — The type of ID used for the cartridge, 0 for barcode or 1 for USB serial number

See Appendix E.5 for an example.

3.9. Talking Book Topics (TBT) Order Form

Any cartridge that contains an edition of *TBT* shall be accompanied by the corresponding order form for that edition. The container with the cartridge and the order form shall be packaged together in an enclosure such as a mailing envelope (see section 3.10). The contractor shall print or label the cover of the *TBT* order form according to the requirements below.

- a. Postal Routing Barcode, GS1-128 compliant as defined in Mailing Standards of the United States Postal Service Domestic Mail Manual section 708.5.2 (see Section 2.1), with the Application Identifier (AI), destination ZIP code data field containing the 5-digit or 9-digit zip code of the patron as supplied, and the check digit, note 3 in drawing 500001018 (Appendix A.6). Clear zone around barcode must be as defined in drawing 500001018. The Postal Routing Barcode shall be visible through the mailing envelope/enclosure window. See example B.7.
- b. Address of the patron, note 4 in drawing 500001018 (Appendix A.6); blank address lines in the address database shall be suppressed. The address of the patron shall be visible through the mailing envelope/enclosure window. See example B.7.
- c. Library ID and Patron ID, note 6 and note 7 in drawing 500001018 (Appendix A.6), supplied from the address database (see Section 3.7.1)
- d. Return address of the patron's regional library, note 5 in drawing 500001018 (Appendix A.6)

- e. Date/Time stamp, note 8 in drawing 500001018 (Appendix A.6)

3.10. *Talking Book Topics (TBT) Envelope/Enclosure*

3.10.1. Construction

The contractor shall provide an envelope/enclosure for mailing the TBT order form with the cartridge containing the TBT audio magazine.

Envelopes/enclosures provided by the contractor to enclose the order form and cartridge container shall be sturdy so as not to tear or split in normal postal use. The envelope/enclosure shall meet the requirements below.

- a. The envelope or enclosure shall meet all USPS requirements.
- b. The envelope or enclosure must have a window to permit the postal routing code (see section 3.9a), patron's name and address (see section 3.9b) on the enclosed order form to be visible.
- c. The envelope size shall be sufficient to hold both the order form and cartridge container.
- d. The construction of the envelope or enclosure shall be such that movement of the order form shall not cause the patron's name and address to be obscured or to reveal the return library's name and address (see example B.7).
- e. Envelopes shall be free from cuts, folds, tears, machine marks, foreign matter, dirt, ink smears, and adhesive stains.
- f. If the flap uses glue, it must be such that it will securely seal the envelope without adhering to contents and permit easy opening by the recipient.
- g. The face of envelope or enclosure is to contain one die-cut window (2" x 3-3/4" in size) with rounded corners. Location of window must be in alignment with the postal routing code and mailing address on the order form.
- h. The window shall be covered with a suitable poly-type, transparent, low-gloss material that must be clear of smudges, lines and distortions. Poly-type material must be securely affixed to the inside of the envelope so as not to interfere with insertion of contents. Window material must meet the current U.S. Postal Service's (USPS) readability standards/requirements.

Note: NLS will consider waiving the requirement for a window covering if the contractor shows that the window edge will not catch nor tear in normal postal use.

3.10.2. Contents

The envelope or enclosure shall contain only the order form booklet and plastic container containing the corresponding completed cartridge for the patron.

The envelope shall be sealed or closed so that the contents remain enclosed in transit.

3.10.3. Print

The envelope or enclosure shall be printed or labelled with the following information. See Appendix B.7 for an example layout of the print information

- a. Return address of the producer in the upper left corner
- b. Printed text “Free Matter for the Blind or Handicapped” in the upper right corner
- c. Printed text “Talking Book Topics Order Form” centered over the top of window
- d. Printed text “Please keep for use with the magazine cartridge” in the lower left corner
- e. NLS/BPH logo/brand in the lower right

4. Quality Assurance

4.1. Lot Inspection

4.1.1. Incoming Inspection for DTBCs from NLS Manufacturer

The contractor is required to perform an incoming lot-sampling inspection of the blank GFE DTBCs produced by the NLS cartridge manufacturer. A lot shall be considered the quantity received by the producer in a single shipment from the cartridge manufacturer.

The acceptable quality level (AQL) shall be level II “normal” 0.4%. The AQL can be modified to “reduced” with approval from NLS QAS. The sampling shall be in accordance with ANSI/ASQ Z1.4-2003, Sampling Procedures and Tables for Inspection by Attributes.

The lot inspection shall consist of the following requirements from NLS Drawing Number 500001013 Housing, Magazine Cartridge or this specification:

- Hardware interface:
 - The USB plug shall be flush or below external surfaces of the cartridge. See note 11 on NLS Drawing Number 500001013B (Appendix A.1)
 - The USB plug shall be oriented so that the electrical contacts face the bottom of the cartridge. See note 15 on NLS Drawing Number 500001013B (Appendix A.1)
- Housing text: A visual inspection and comparison with the control sample of the cartridge text is required to ensure contrast, clarity, and orientation. All markings shall be black. The following text shall be inspected:
 - Library of Congress Washington DC 20542
 - PROPERTY OF THE U.S. GOVERNMENT
 - Further reproduction or distribution in other than a specialized format is prohibited
 - **FC**

- Housing barcode: The housing barcode shall be readable by a barcode scanner and appear clear to a visual inspection.
 - Housing dimensions: The cartridge dimensions enclosed by an ellipse as defined by note 18 on NLS Drawing Number 500001013B (Appendix A.1) shall conform to the requirements specified.
 - Housing color: A visual inspection and comparison with the control sample under natural sunlight is required to ensure a reasonable match in color.
 - Electrical interface:
 - Verify cartridge is recognized by a computer and identified as an LoC.NLS Talking Book USB Device (not generic device)
 - DTBC write-enabled passcode: Verification of the cartridge write-enabled passcode supplied to the contractor per Section 3.5.1 and Appendix D.1
- The producer shall report any failed cartridge lot to NLS QAS, via e-mail address qas@loc.gov, within 24 hours.

4.1.2. Outgoing Inspection

The contractor is required to use an outgoing lot-inspection sampling plan of the finished product for the following requirements from this specification. Acceptable Quality Level (AQL) shall be level II “normal” 0.65%. The lot size shall be the total number of units produced in one 8-hour production shift. The inspection shall test the following requirements:

- Existence and validity of all files per Section 3.4 of this specification on the DTBC
- DTBC is write protected
- DTBC can be write-enabled by applying the write-enabled passcode and ensuring it is writeable. Any failure to write enable a cartridge must be reported immediately to the NLS QAS, via e-mail at qas@loc.gov, and shipments halted. If the cartridge is successfully write enabled, then the cartridge must be write protected and included with the shipment.
- DTBC label is present with legible printing
- Address card is present with legible printing
- Address card contains the correct patron information for the corresponding DTBC
- Container large face label is present with legible printing
- Container latches properly

4.1.3. Defective Cartridges

New government-furnished USB flash-memory cartridges found to be defective shall be returned to NLS QAS or, on the direction of the contract monitor, directly to the manufacturer. The contractor is responsible for reporting all defective government-furnished cartridges to NLS QAS or the contract monitor within one week from the date the defect was discovered.

4.2. Contractor’s Quality-Control Plan

The contractor is required to provide written documentation showing that the contractor's methods of quality control incorporate those established by this specification under Section 4.1.

4.3. Correction of Faults by Contractor

Should NLS determine that a significant fault or faults have been found in production units, then correction of the fault or faults in previously produced units and production inspections or controls for prevention shall be instituted without additional charge to NLS.

4.4. Contractor's Warranty

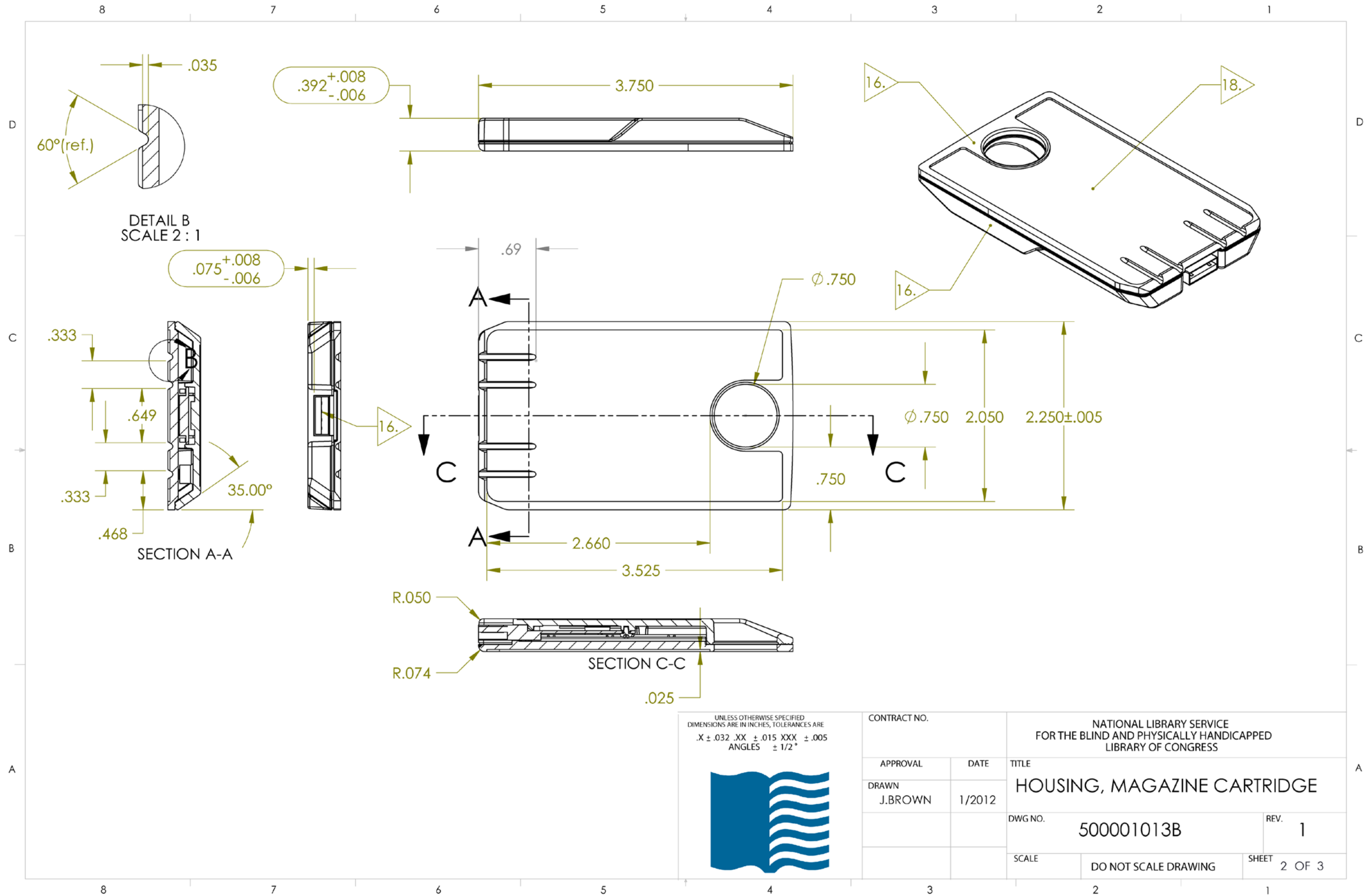
The contractor shall agree to unconditionally warrant each finished product for a period of one (1) year. The warranty shall include only the materials supplied by and work performed by the contractor. The contractor will not be responsible for defects or damage of GFE cartridges and containers unless the damage was caused by the contractor. Finished cartridges and containers produced by the contractor that are not in conformance with this specification will be returned to the contractor and shall be refurbished for reuse at the contractor's expense. Replacements shall be mailed to the patron within two (2) working days. A monthly report on warranty returns shall be forwarded to the NLS QAS. This report should be sent to qas@loc.gov, and is due by the 7th of the following month. The monthly report document shall be submitted for approval as part of the written documentation described in Section 4.2.

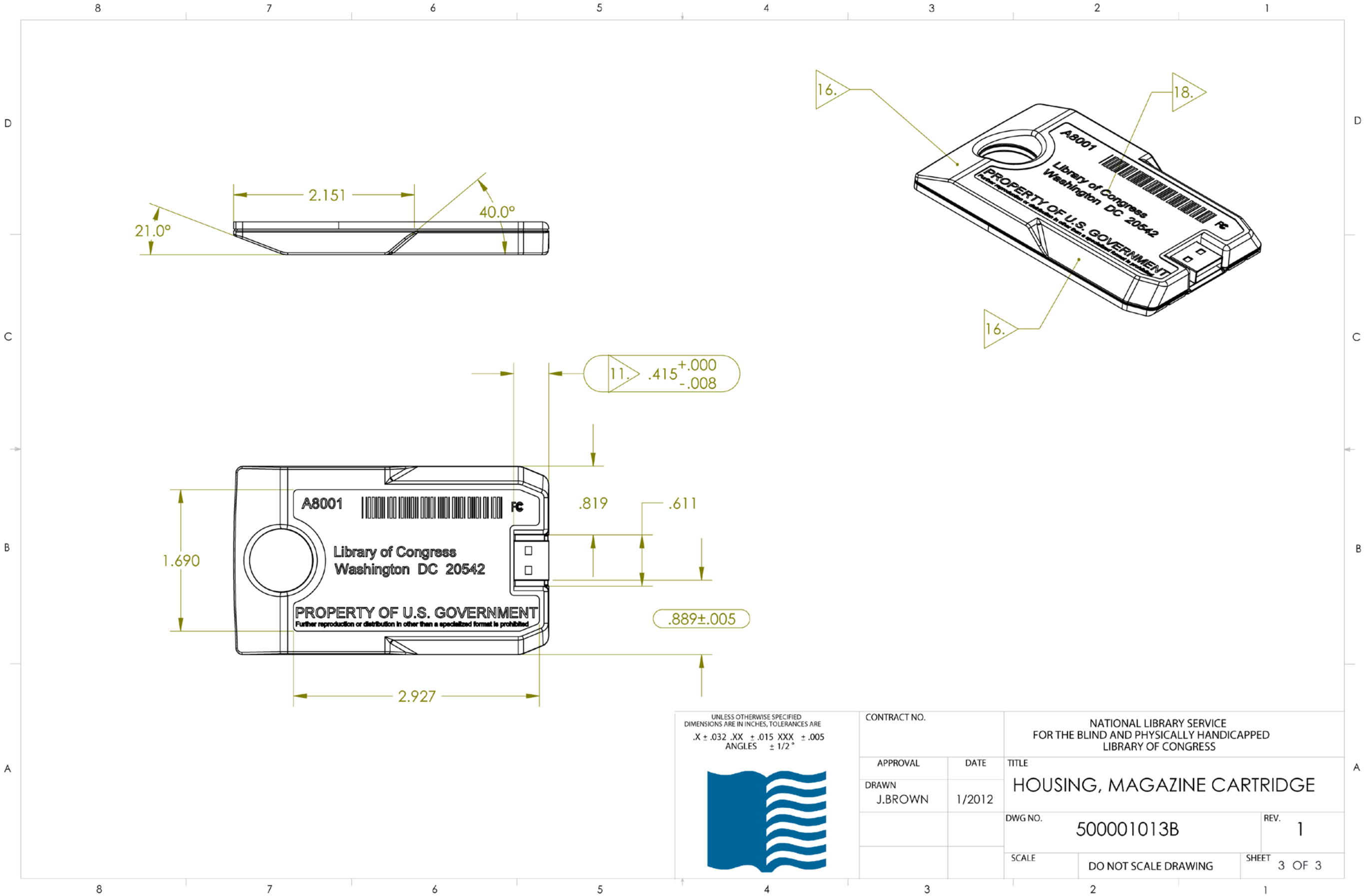
4.5. Inspection of Contractor by NLS

The National Library Service for the Blind and Physically Handicapped, Library of Congress, reserves the right to inspect any process or tests being performed. The Library representative shall have the authority to select, at random, a sample of the cartridges for testing to the specified requirements at any time during the course of the contract. The National Library Service for the Blind and Physically Handicapped, Library of Congress, reserves the right to reject any production lot represented by a sample that has been tested and rejected.

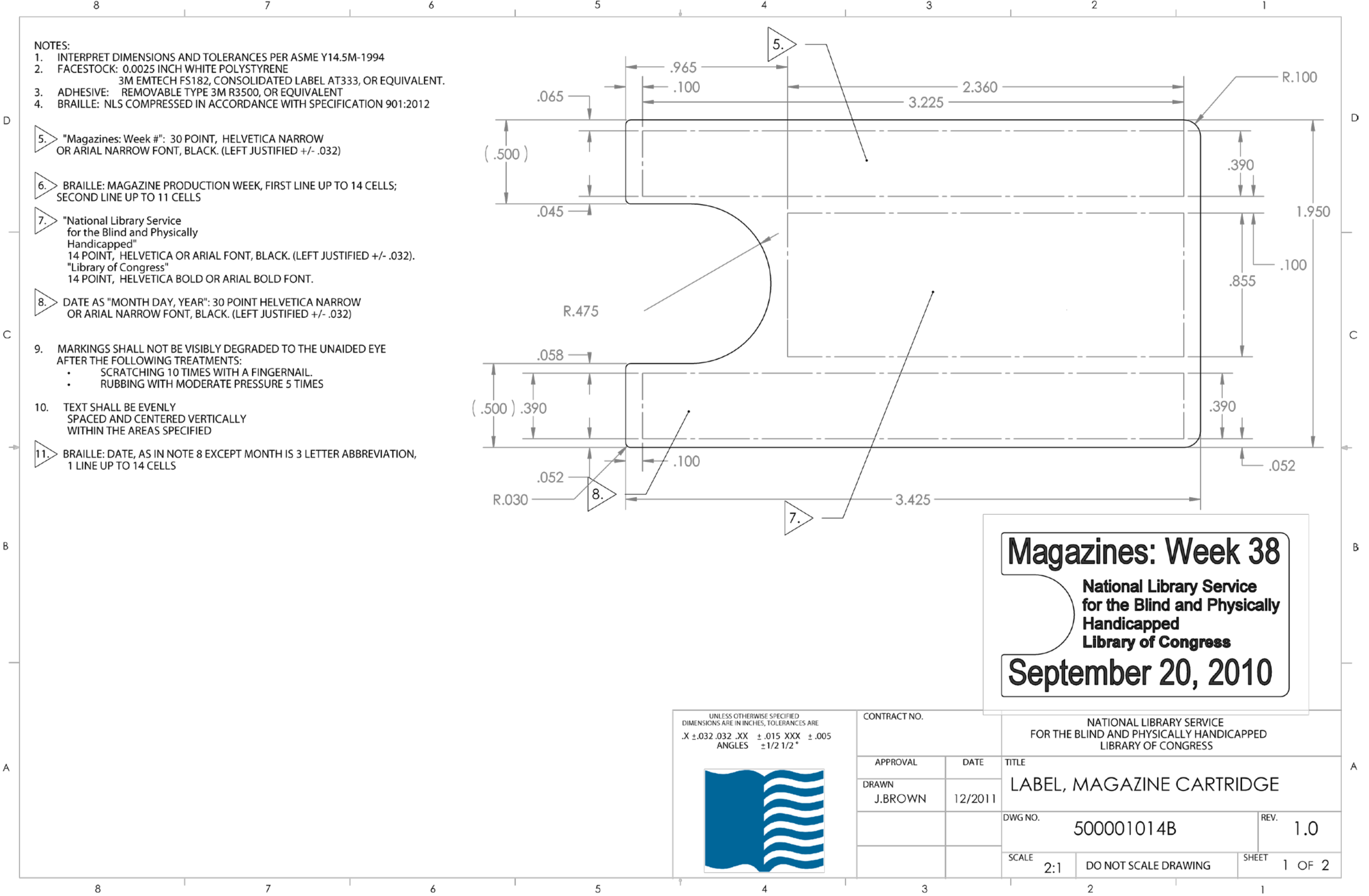
Appendices

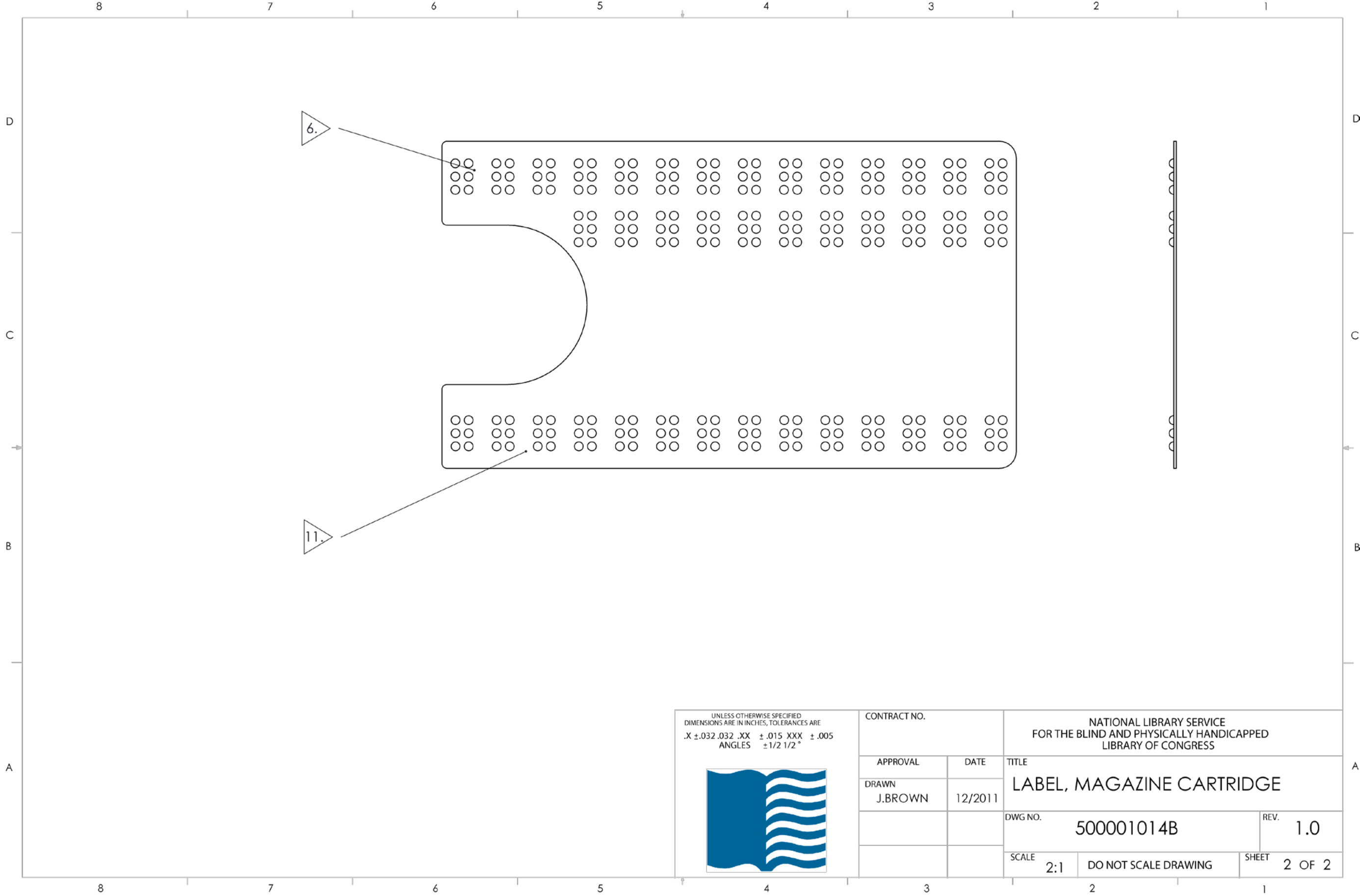






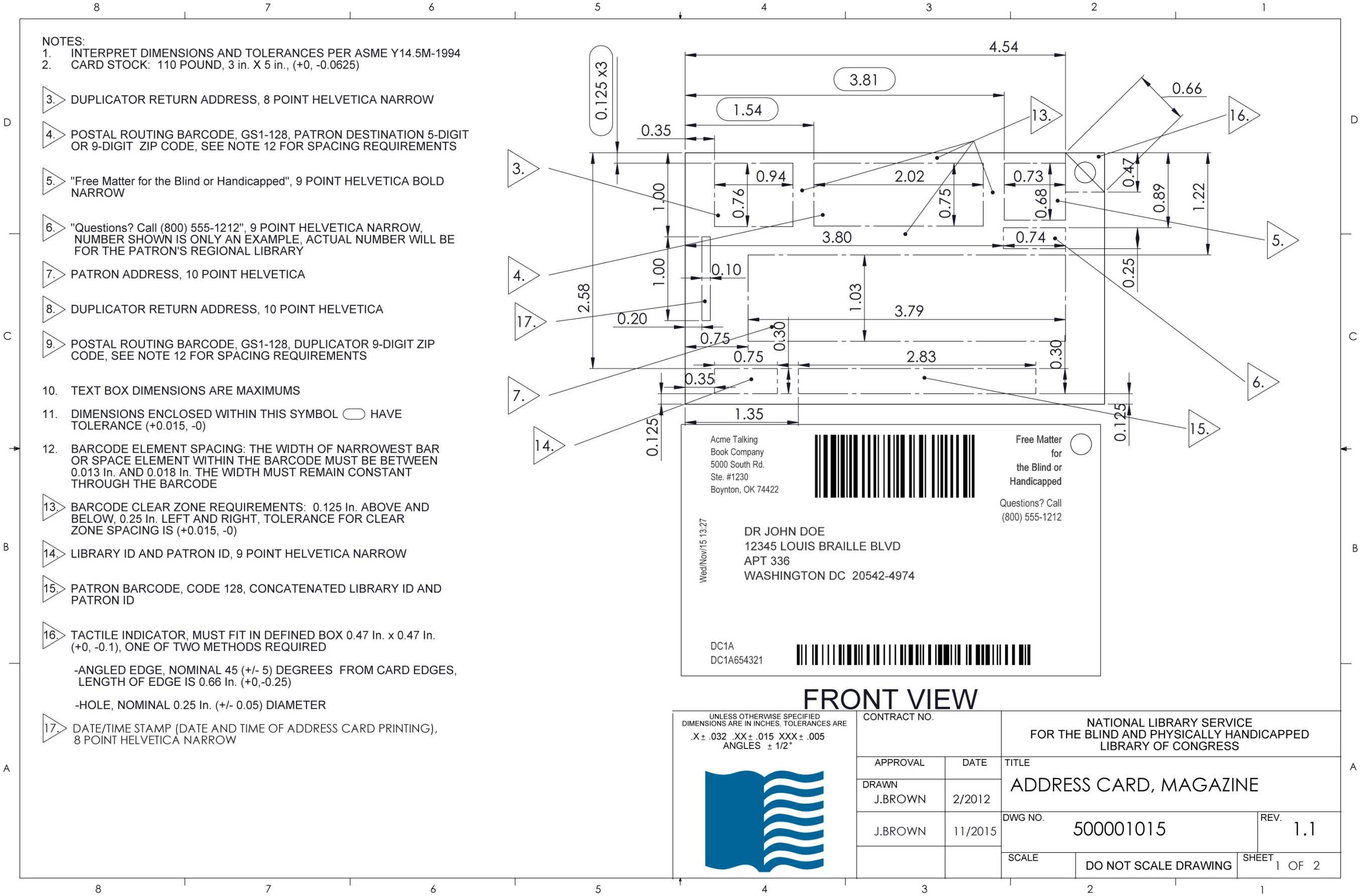
A.2 Magazine Label

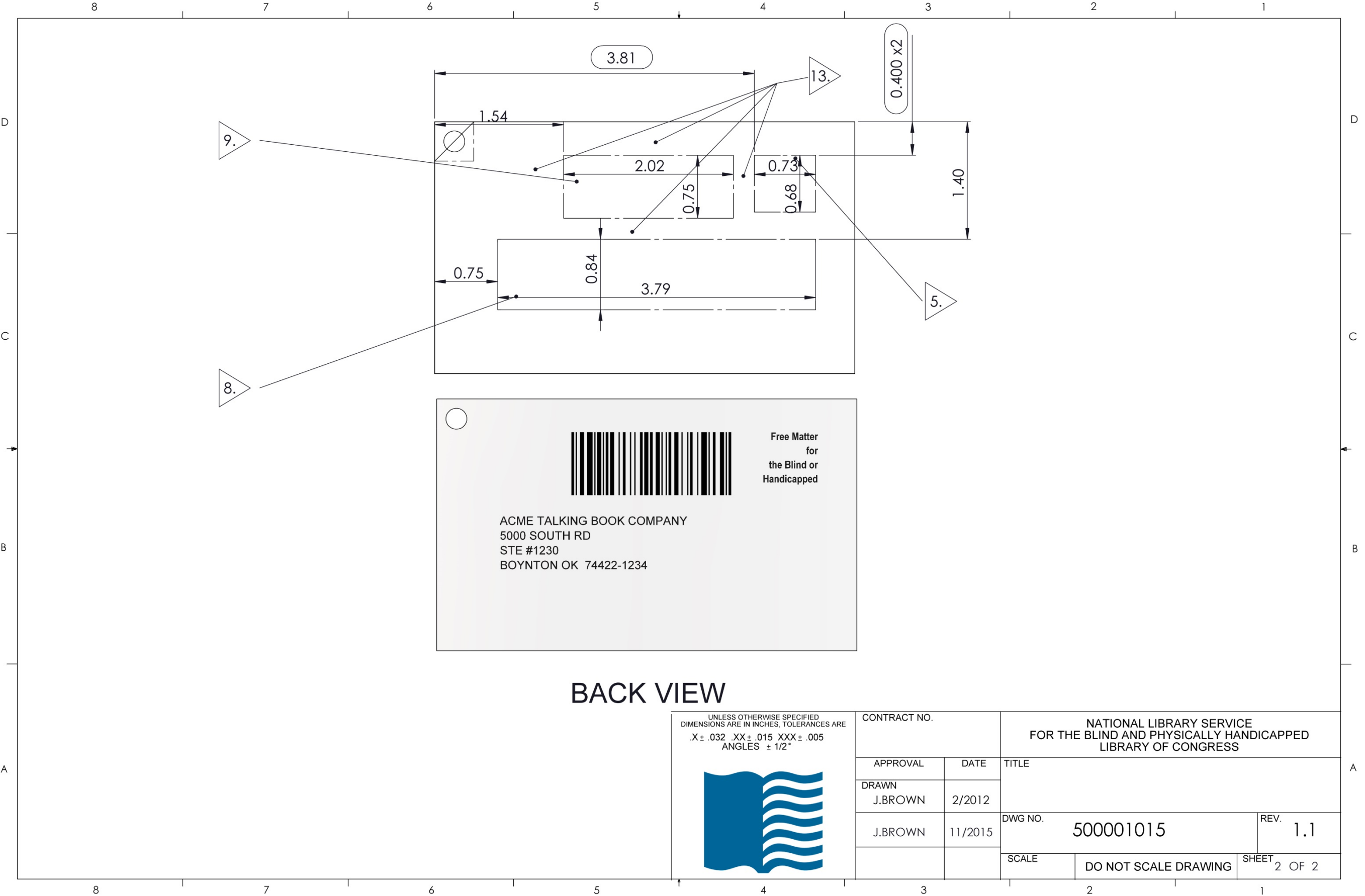




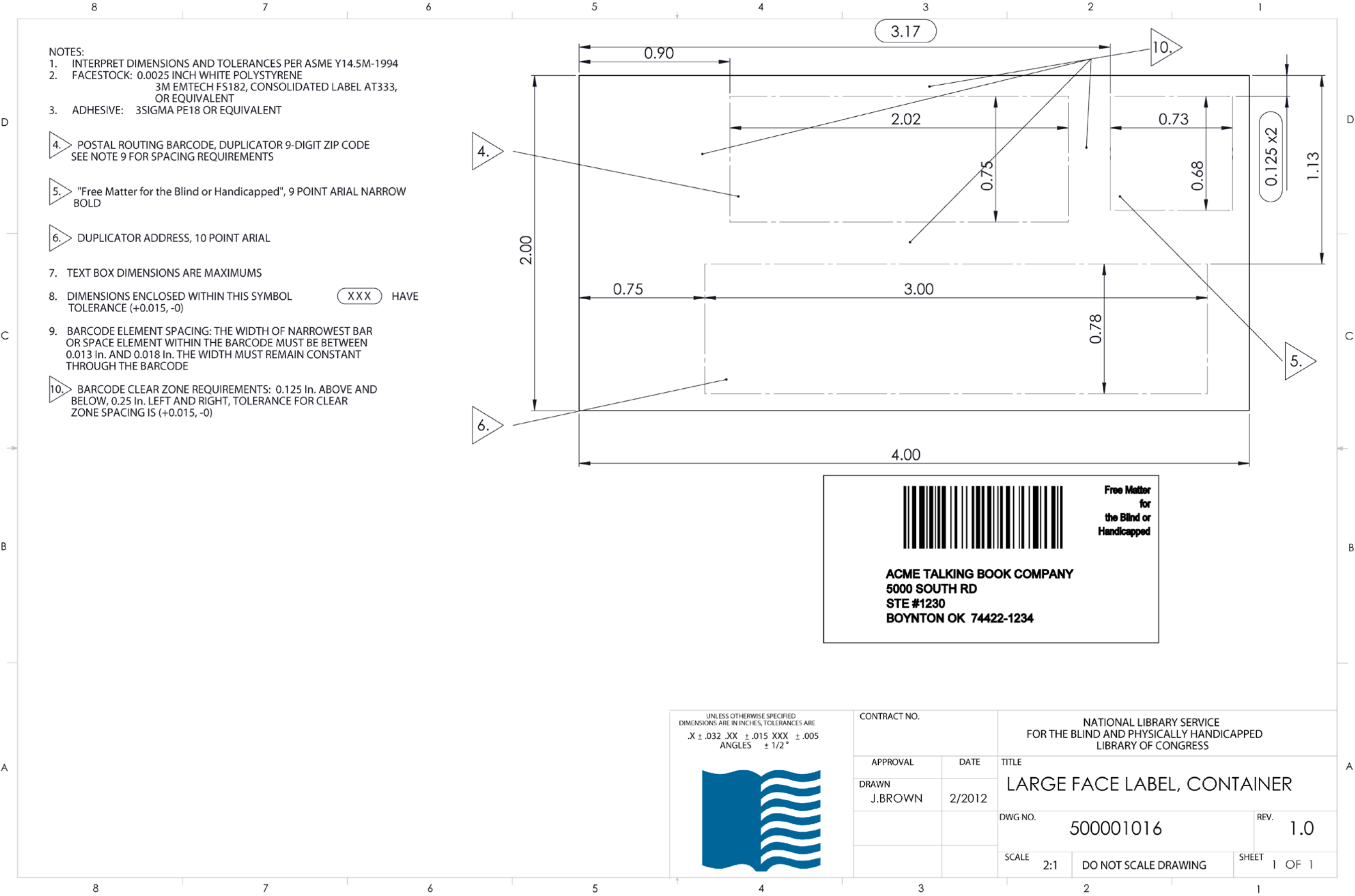
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE .X ±.032 .032 .XX ±.015 XXX ±.005 ANGLES ±1/2 1/2 °		CONTRACT NO.		NATIONAL LIBRARY SERVICE FOR THE BLIND AND PHYSICALLY HANDICAPPED LIBRARY OF CONGRESS	
APPROVAL		DATE		TITLE	
DRAWN J.BROWN		12/2011		LABEL, MAGAZINE CARTRIDGE	
				DWG NO. 500001014B	REV. 1.0
				SCALE 2:1	DO NOT SCALE DRAWING
				SHEET 2 OF 2	

A.3 Address Card

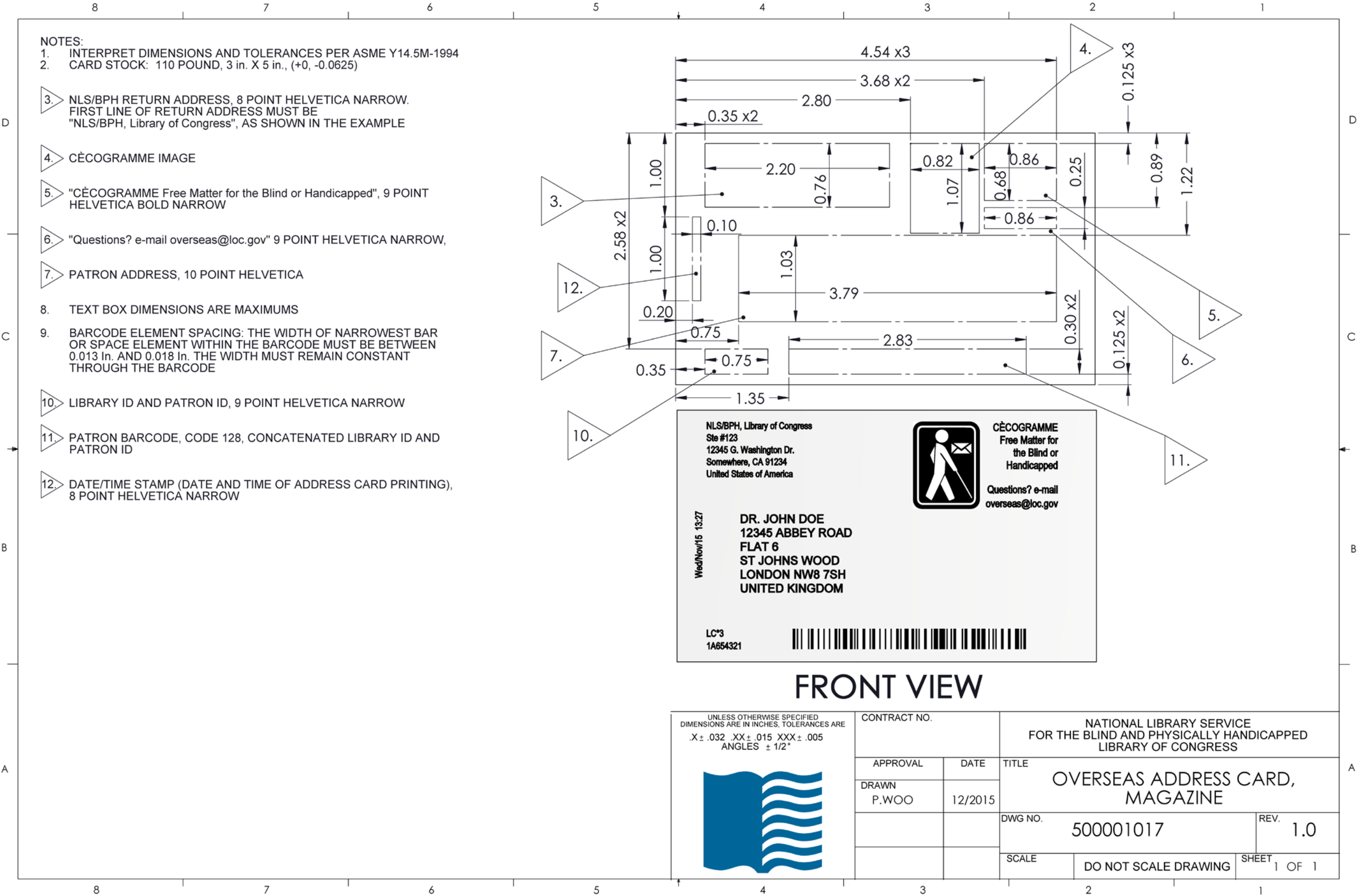




A.4 Large Face Label



A.5 Overseas Address Card





4

3

2

1

B

B

Free Matter for the
Blind or Handicapped

January - February 2007

FROM:

TO:

DR JOHN DOE
ABC, INC.
12345 LOUIS BRAILLE BLVD
APT 336
WASHINGTON DC 20542-4974

ACME TALKING BOOK LIBRARY
FOR THE BLIND
67890 CHAFEE ST
SUITE 4321
NEW YORK NY 10030-2314

DC1A DC1A854321

FRONT VIEW

UNLESS OTHERWISE SPECIFIED:

DRAWN

CHECKED

ENG APPR.

MFG APPR.

Q.A.

COMMENTS:

NAME

DATE

1/21/2016

TITLE:

TBT Order Form

SIZE

DWG. NO.

REV

B

50001018

1.0

SCALE: 2:1

WEIGHT:

SHEET 2 OF 2

THE INFORMATION CONTAINED IN THIS
DRAWING IS THE SOLE PROPERTY OF
<INSERT COMPANY NAME HERE>. ANY
REPRODUCTION IN PART OR AS A WHOLE
WITHOUT THE WRITTEN PERMISSION OF
<INSERT COMPANY NAME HERE> IS
PROHIBITED.

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS
DRAWING IS THE SOLE PROPERTY OF
<INSERT COMPANY NAME HERE>. ANY
REPRODUCTION IN PART OR AS A WHOLE
WITHOUT THE WRITTEN PERMISSION OF
<INSERT COMPANY NAME HERE> IS
PROHIBITED.

APPLICATION

DO NOT SCALE DRAWING

4

3

2

1

A

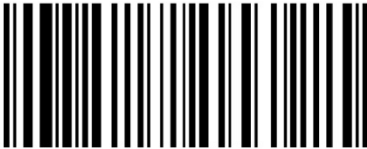


A

B. Examples



B.1 Magazine Print/Braille Label




B.2 Address Card Front

Acme Talking Book Company 5000 South Rd. Ste. #1230 Boynton, OK 74422		Free Matter for the Blind or Handicapped	
Wed/Nov/15 13:27	DR JOHN DOE 12345 LOUIS BRAILLE BLVD APT 336 WASHINGTON DC 20542-4974		
DC1A DC1A654321			



B.3 Address Card Back

		Free Matter for the Blind or Handicapped
ACME TALKING BOOK COMPANY 5000 SOUTH RD STE #1230 BOYNTON OK 74422-1234		



B.4 Large Face Label

	<p>Free Matter for the Blind or Handicapped</p>
<p>ACME TALKING BOOK COMPANY 5000 SOUTH RD STE #1230 BOYNTON OK 74422-1234</p>	

B.5 Overseas Address Card

<p>NLS/BPH, Library of Congress Ste #123 12345 G. Washington Dr. Somewhere, CA 91234 United States of America</p>		<p>CÉCOGRAMME Free Matter for the Blind or Handicapped</p> <p>Questions? e-mail overseas@loc.gov</p>
<p>Wed/Nov/15 13:27</p>	<p>DR. JOHN DOE 12345 ABBEY ROAD FLAT 6 ST JOHNS WOOD LONDON NW8 7SH UNITED KINGDOM</p>	
<p>LC*3 1A654321</p>		

B.6 TBT Order Form

		Free Matter for the Blind or Handicapped	
		January - February 2007	
			
FROM:	Wed/Nov/15 13:27	DR JOHN DOE ABC, INC. 12345 LOUIS BRAILLE BLVD APT 336 WASHINGTON DC 20542-4974	
TO:		ACME TALKING BOOK LIBRARY FOR THE BLIND 67890 CHAFEE ST SUITE 4321 NEW YORK NY 10030-2314	
			
		DC1A DC1A654321	

B.7 TBT Order Form and Mailing Envelope

ACME TALKING BOOK COMPANY
5000 SOUTH RD
STE #1230
BOYNTON OK 74422-1234

Free Matter for the
Blind or Handicapped

Talking Book Topics Order Form



DR JOHN DOE
ABC, INC.
12345 LOUIS BRAILLE BLVD
APT 336
WASHINGTON DC 20542-4974

Please Keep
for use with
the magazine
cartridge



National Library Service
for the blind and physically handicapped

LIBRARY OF CONGRESS

C. Contractor XML

```
<?xml version="1.0" encoding="utf-8"?>
<dtbc xmlns="http://www.loc.gov/nls/dtbc">
  <!-- Contractor's 3-letter abbreviation, upper case -->
    <contractor>ACM</contractor>
    <listId>ACM20120027</listId>
</dtbc>
```

D. DTBC Passphrase

D.1 DTBC Write Enable

The digital talking-book cartridge (DTBC) is implemented as a mass storage class device using USB Bulk Only Transport and the SCSI Transparent Command Set. A vendor-specific SCSI command is used to write enable the cartridge.

The write-enable SCSI command block is 6 bytes long and contains an operation code byte (10h) and a passcode parameter length.

To enable a device for writing, once a “Set Passcode” command has been executed at any time since manufacture, the “Write-Enable” command shall be executed with the last passcode set each time power is applied to the device. The passcode is the 16-byte, 8-bit sequence represented by the hexadecimal passphrase supplied by NLS for cartridges provided as GFE. The passcode shall be contained in the parameter list and be 16 bytes.

Example hexadecimal representation of 16 byte passphrase:

“9E107D9D372BB6826BD81D3542A419D6”

Vendor Specific SCSI command 0x10

Bit Byte	7	6	5	4	3	2	1	0
0	Operation Code (10h)							
1	Reserved (0)							
2	Not Used (0)							
3	Not Used (0)							
4	Parameter List Length (10h)							
5	Control (0)							

Parameter List

Bit Byte	7	6	5	4	3	2	1	0
0	Byte 0 of passcode (0x9E)							
1	Byte 1 of passcode (0x10)							
2	Byte 2 of passcode (0x7D)							
3	Byte 3 of passcode (0x9D)							
4	Byte 4 of passcode (0x37)							
5	Byte 5 of passcode (0x2B)							
6	Byte 6 of passcode (0xB6)							
7	Byte 7 of passcode (0x82)							
8	Byte 8 of passcode (0x6B)							
9	Byte 9 of passcode (0xD8)							

10	Byte 10 of passcode	(0x1D)
11	Byte 11 of passcode	(0x35)
12	Byte 12 of passcode	(0x42)
13	Byte 13 of passcode	(0xA4)
14	Byte 14 of passcode	(0x19)
15	Byte 15 of passcode	(0xD6)

D.2 DTBC Write Protect

The digital talking-book cartridge (DTBC) is implemented as a mass storage class device using USB Bulk Only Transport and the SCSI Transparent Command Set. A vendor-specific SCSI command is used to write enable the cartridge.

The write-protect SCSI command block is 6 bytes long and contains an operation code byte (11h) and a passcode parameter length.

To protect a device against writing, the “Write-Protect” command shall be executed with the 16-byte passcode. The passcode is the 16-byte, 8-bit sequence represented by the hexadecimal passphrase supplied by NLS. The passcode shall be contained in the parameter list and be 16 bytes.

Example hexadecimal representation of 16-byte passphrase:

“076827E5E002E0A4CFCB990EF3E8CDB3”

Vendor Specific SCSI command 0x11

Bit Byte	7	6	5	4	3	2	1	0
0	Operation Code (11h)							
1	Reserved (0)							
2	Not Used (0)							
3	Not Used (0)							
4	Parameter List Length (10h)							
5	Control (0)							

Parameter List

Bit Byte	7	6	5	4	3	2	1	0
0	Byte 0 of passcode (0x07)							
1	Byte 1 of passcode (0x68)							
2	Byte 2 of passcode (0x27)							
3	Byte 3 of passcode (0xE5)							
4	Byte 4 of passcode (0xE0)							
5	Byte 5 of passcode (0x02)							
6	Byte 6 of passcode (0xE0)							
7	Byte 7 of passcode (0xA4)							
8	Byte 8 of passcode (0xCF)							
9	Byte 9 of passcode (0xCB)							
10	Byte 10 of passcode (0x99)							
11	Byte 11 of passcode (0x0E)							

12	Byte 12 of passcode	(0xF3)
13	Byte 13 of passcode	(0xE8)
14	Byte 14 of passcode	(0xCD)
15	Byte 15 of passcode	(0xB3)

E. Database Files

E.1 Address Database File

The file containing patron addresses shall be in Comma-Separated Value (CSV) format as defined in the Internet Engineering Task Force RFC4180. The file does not contain the optional header line.

The fields in each entry shall contain the following data:

Field	Description	Format	Example
1	Library ID	Alphanumeric (4 characters)	FL1A
2	Patron ID	Alphanumeric (variable length)	M6677167
3	Name	Alphanumeric (variable length)	DR JOHNATHAN DOE
4	Address Line 1	Alphanumeric (variable length)	54321 NORTH MAIN STREET
5	Address Line 2	Alphanumeric (variable length)	APT 123
6	Address Line 3	Alphanumeric (variable length)	
7	City	Alphanumeric (variable length)	PENSACOLA
8	State	Alphabetic (2 characters)	FL
9	ZIP or ZIP+4	Numeric (5 or 9 digits)	325146277
10	Country (if not USA)	Alphanumeric (variable length)	
11	Foreign	Single Digit (0 if US else 1)	0
12	Library Phone Number	Numeric (10 digit)	8004248567

E.2 Picking List Database File

The file containing orders for duplication of magazine editions shall be in Comma-Separated Value (CSV) format as defined in the Internet Engineering Task Force RFC4180. The file does not contain the optional header line.

The fields in each entry shall contain the following data:

Field	Description	Format	Example
1	Library ID	Alphanumeric (4 characters)	FL1A
2	Patron ID	Alphanumeric (variable length)	M6677167
3	Patron Instance	Numeric (1 digit)	0
4	Magazine ID	Alphabetic (3 characters)	TWK
5	Edition ID	Numeric (8 digits)	20120070
6	Picking List ID	Alphanumeric (10 characters)	ACM2012027

E.3 DTBC Serial Number Database File

The file containing DTBC barcodes and their corresponding USB electronic serial numbers shall be in Comma-Separated Value (CSV) format as defined in the Internet Engineering Task Force RFC4180. The file does not contain the optional header line.

The fields in each entry shall contain the following data:

Field	Description	Format	Example
1	Barcode with check digit	Alphanumeric (8 characters)	EDDGAAC8
2	Electronic USB serial number	Alphanumeric (12 characters)	801144008491

E.4 DTBC Shipped Database File

The file containing the DTBC identifier and the identifier for the patron to whom it was sent shall be in Comma-Separated Value (CSV) format as defined in the Internet Engineering Task Force RFC4180. The file does not contain the optional header line.

The fields in each entry shall contain the following data:

Field	Description	Format	Example
1	Library ID	Alphanumeric (4 characters)	FL1A
2	Patron ID	Alphanumeric (variable length)	M6677167
3	Cartridge ID	Alphanumeric (variable length)	801144008491
4	Cartridge ID type	Bool (0 – barcode or 1 – ESN)	1
5	Picking List ID	Alphanumeric (10 characters)	ACM2012027

E.5 DTBC Received Database File

The file containing the DTBC identifiers for cartridges returned from patrons shall be in Comma-Separated Value (CSV) format as defined in the Internet Engineering Task Force RFC4180. The file does not contain the optional header line.

The fields in each entry shall contain the following data:

Field	Description	Format	Example
1	Cartridge ID	Alphanumeric (variable length)	801144008491
2	Cartridge ID type	Bool (0 – barcode or 1 – ESN)	1